

December 5, 2003
Docket No.: DP-301665 (7500/249)
Serial No.: 10/052,240
Filed: January 17, 2002
Page 2

CLAIM AMENDMENTS

Please amend claims 18 and 19, without prejudice or disclaimer, as indicated below, such that after entry of the amendment the claims remaining under consideration read as follows

1-14. (Cancelled)

15. (Previously Presented) Braking force amplifier with dual amplification ratios comprising:

a piston operated by a pressure differential between a front chamber and a back chamber;

a plunger mounted to be axially displaceable in said piston between positions controlling the evolution of said pressure differential by switching means, said plunger operably attached to a brake pedal; and

a thrust assembly comprising a reaction rod operably connected to a master-cylinder of corresponding brakes and mounted to be axially displaceable under control of the plunger between a first braking state corresponding to a first amplification ratio of a braking force and a second braking state corresponding to a second amplification ratio of the braking force, and a deformable reaction disc interposed between the piston and the plunger and said reaction rod,

wherein said deformable reaction disc forms around said piston and within said thrust assembly when the pressure differential acts on said piston, said deformable reaction disc deforming based on the amount of the pressure differential, and said deformable reaction disc contributing to determining a braking force at which passage from the first braking state to the second braking state takes place.

December 5, 2003
Docket No.: DP-301665 (7500/249)
Serial No.: 10/052,240
Filed: January 17, 2002
Page 3

16. (Previously Presented) Amplifier as described in claim 15, wherein the deformations are a function of stiffness of the reaction disc.

17 (Previously Presented) Amplifier as described in claim 15, wherein the piston includes a piston bearing surface in physical contact with a thrust assembly bearing surface, wherein an area of contact between the piston bearing surface and the thrust assembly bearing surface-determines the second amplification ratio, and a distance (X) between the piston bearing surface and the thrust assembly bearing surface, at rest, determines the braking force at which the passage from the first braking state to the second braking state takes place.

18. (Currently Amended) Amplifier as described in claim 17, wherein the piston bearing surface and the thrust assembly bearing surface are annular and co-axial.

19. (Currently Amended) Amplifier as described in claim 15, wherein the reaction disc is arranged in a housing formed in a head at an end of the reaction rod, said housing providing a cavity ~~forming said means~~ for absorption of said deformations.

20. (Previously Presented) Amplifier as described in claim 19, wherein the housing is suitable to receive an end of the piston, said housing having a dimension greater than that of the end of the piston to provide the cavity for absorption of the deformations of the reaction disc.

December 5, 2003
Docket No.: DP-301665 (7500/249)
Serial No.: 10/052,240
Filed: January 17, 2002
Page 4

21. (Previously Presented) Amplifier as described in claim 18, wherein the reaction rod includes at an end a head mounted to be axially displaceable within a sleeve provided with a flange forming an orifice in which an end of the piston slides, and a bearing surface the reaction disc being housed within the sleeve, said reaction disc bearing on the head and on the bearing surface of the flange, said bearing surface of the flange co-operating with the end of the piston on displacement of the piston to form said means for absorption of the deformation of the reaction disc.

22 (Previously Presented) Amplifier as described in claim 21, wherein the orifice formed by the flange of the sleeve is circular and the end of the piston able to slide in said orifice is cylindrical.

23. (Previously Presented) Amplifier as described in claim 22, wherein elastic means are mounted within the sleeve bearing on a face of the head of the reaction rod opposite to the reaction disc and on a stop operably attached to the sleeve to apply a return force to said sleeve.

24. (Previously Presented) Amplifier as described in claim 23, wherein the elastic means comprise a conical washer.

25. (Previously Presented) Amplifier as described in claim 24, wherein the sleeve includes a shoulder operable to be a travel limit stop to the head of the reaction rod in the absence of braking.

26. (Previously Presented) Amplifier as described in claim 25, wherein the reaction disc is incompressible.

December 5, 2003
Docket No.: DP-301665 (7500/249)
Serial No.: 10/052,240
Filed: January 17, 2002
Page 5

27. (Previously Presented) Amplifier as described in claim 26, wherein the first amplification ratio is constant.

28. (Previously Presented) Amplifier as described in claim 27, wherein the second amplification ratio is constant.

December 5, 2003
Docket No.: DP-301665 (7500/249)
Serial No.: 10/052,240
Filed: January 17, 2002
Page 6

INTRODUCTORY COMMENTS

The present amendment replies to a Final Office Action dated October 21, 2003. In the Final Office Action, Examiner Lopez asserted the following rejections and objections of pending claims 15-28:

- A. Claims 15-28 were rejected as indefinite under 35 U.S.C. §112 second paragraph.**
- B. Claims 15-20 were rejected under 35 USC §103(a) as unpatentable over Endo or Levrai in view of Suzuki.**
- C. Claims 15, 16, 19 and 20 were rejected under 35 USC §103(a) as unpatentable over Gauthier in view of Suzuki.**
- D. Claims 15, 16, 19 and 20 were rejected under 35 USC §103(a) as unpatentable over either Japanese Patent 10,230,841, Inoue or Tobisawa in view of Suzuki.**
- E. Claims 21-28 are allowable if rewritten to comply with 35 U.S.C. §112 second paragraph and rewritten in independent form.**

Claims 18 and 19 have been amended herein. Withdrawal of the objections under 37 CFR 1.126 to the previously misnumbered claims 12, 26, and 27 as renumbered claims 26, 27, and 28 is respectfully requested. Withdrawal of the rejection of claims 16-28 under 35 U.S.C. §112 is therefore respectfully requested. Withdrawal of the rejections of claim 15 under 35 U.S.C. §102(b) and §102(e) is therefore respectfully requested. The Applicants respectfully request reconsideration and further examination of the present application under 37 CFR §1.112.